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PAPAVER ORIENTALE.



FEBRUARY, 1889.

THE APPROACH of spring demands the attention of the gardener and the fruit grower to the selection of varieties of fruits of the different kinds they intend to plant. The decision in this matter will depend greatly on the experience of the individual, and properly this should be so. What has proved to be good and satisfactory in one's own locality, and on one's own ground should be held fast. It is especially true with the small fruits that they are greatly affected by locality, exposure and soil, and the real value of an untested variety can be absolutely determined for any particular fruit grower or gardener only by himself. In this matter the tests made at Experiment Stations, though near at home, and the reports at horticultural meetings, are only comparatively trustworthy in their application elsewhere. When a number of varieties are tested together, and under the same conditions, the test shows the relative value of the varieties for the place where it is made, and some of the points indicated will hold good anywhere. So, we may consider that tests of varieties fairly made at Experiment Stations approximate the truth for the same varieties elsewhere, requiring to be supplemented always for a particular locality. From this conclusion it follows that it is safe to plant a new variety only after it has been previously tried in a small way

and found to be satisfactory. The fruit grower is always in search of an ideal fruit for some particular purpose, and, as occasionally a variety is originated which takes a position not before occupied, so there is always a hope that something better than what we have is to be obtained. Thus the production of new varieties is stimulated. For those who may intend to plant small fruits the coming spring, a brief summary of the work done the past season in testing varieties by the Ohio Agricultural Experiment Station, at Columbus, will offer some points of interest.

The varieties of Strawberries tested there were the following: Anna Forest, Belmont, Bomba, Bubach, Crescent, Cumberland, Covell, Champion, Carmichael, Crimson Cluster, Downing, Gold, Gandy, Haverland, Hoffman's, Itaska, Jewell, Jessie, Lida, Miner's Prolific, May King, Mammoth, Monmouth, Norman, Old Iron Clad, Ohio, Ontario, Photo, Parry, Pearl, Sunapee, Sucker State, Sharpless, Truit's Surprise, Warfield.

The statement of results in regard to each variety is given, but in the summary only the following named varieties are mentioned as worthy of trial for market purposes: Bubach, Crescent, Gandy, Haverland, Jessie, Miner's Prolific, May King, Ohio and Pearl. Varieties possessing points of excellence which make

them desirable to amateurs, are the Anna Forest, Covell, Gold, Jewell, Lida, Mammoth, Norman, Ontario and Warfield.

The Bubach is mentioned as having luxuriant foliage, withstands drought well, the quantity of fruit seemingly less than such plants ought to produce, quality rather poor. On the whole, a remarkable variety, with sufficient good qualities to win for it a permanent place among profitable market sorts.

In most sections the Crescent is regarded as the most profitable of old varieties. Productive and early.

The Gandy is said to be unsurpassed in growth and healthfulness of foliage; one of the best to withstand drought.

Haverland. No doubt as to health, vigor and productiveness of plants. The indications are that it will prove a formidable rival of the Crescent.

The Jessie has given satisfactory results for three seasons. Yield not as heavy as Crescent. Fruit of fine appearance and good quality. "It is not far from the truth to say that it yields more than any other variety at the Station, but this locality cannot be taken as representing the whole State. Every grower ought to try it on his own soil, especially if he can sell choice berries at a premium, otherwise he may find more profit in the Crescent and Haverland."

Miner's Prolific is mentioned as valuable for near market and for family use.

May King is an early variety and a good companion for the Crescent. Neither so productive nor so early as has sometimes been represented, nevertheless a valuable variety.

Ohio is recommended only as a late market variety on a moist, rich location, and, if possible, with a northern exposure.

The plants of Pearl are healthy and withstand drought almost perfectly; productive. The fruit, although not large, is above medium and very uniform in size and regular in outline, making a good appearance in the baskets. Commercial growers are advised to give it a trial.

In regard to the Raspberries, the report from the same Station recommends worthy of trial the Ada, Carman, Earhart, Golden Queen, Hilborn, Johnston's Sweet, Marlboro, Reliance, Shaffer, Tyler and Turner.

The Blackberries recommended for

general cultivation are the Ancient Briton, Agawam, Snyder and the Lucretia Dewberry. The Erie, Early Harvest, Minnewaski and Wilson Jr., are worthy of trial by amateurs.

A report made to the Kansas Horticultural Society by B. F. SMITH, one of the largest and most successful Strawberry growers in that State, shows the season of 1888 to have been one of extremes, either too much or too little rain. A drought, in the spring, of six weeks very much injured the berry crop, and on the whole there was not more than half the product of a favorable season.

The varieties of Strawberries which stood the test of the dry season are Captain Jack, Crescent, Windsor Chief, James Vick and Charles Downing.

He remarks that the Miner, Parry, May King, Jessie, Bubach, Lida and Sucker State are about equal in drought-standing qualities, but does not state what these qualities are, evidently however, inferior to those first named.

In answer to the question, if there is any money in the berry business, Mr. SMITH says, "Yes," and qualifies the answer by saying that as much money can be made in it as in any other branch of horticulture or farming; but a new adventurer should begin at the bottom and work into the business by degrees, if he expects to make it a success.

A report by ARTHUR BRYANT, Princeton, Illinois, to the Illinois State Horticultural Society, says: "First picking of Strawberries unusually light. Crescent still leads; Captain Jack and May King much used as fertilizers. Raspberries fair crop; Gregg and Souhegan lead, with Ohio gaining in favor. Snyder Blackberry leads."

D. H. GRAY reports to the same society, as we learn through the *Orange Judd Farmer*, that in the northwestern part of Central Illinois, the best varieties were Crescent first in yield, twenty per cent. ahead of any other variety. Bubach No 5 second in money value and third in yield, its perfect color and form capturing the buyer. Mt. Vernon third in money value and second in quality. Sharpless, one of the best fertilizers, is fourth. Manchester is better than usual, and Champion did well. Downing is good as a fertilizer, but was lowest this year for value and fruitfulness; it always

moves a little nearer the front during a rainy season. Jersey Queen is of unquestionable value. His selection for field crop is, Crescent with Mt. Vernon and Bubach No. 5, with Jessie and Sharpless.

The Dakota Horticultural Society recommends for that State: Strawberries—Crescent with Wilson and Charles Downing as fertilizers, Mt. Vernon, Glendale, Downer's Prolific or Countess, Jessie, Bubach, Gandy. Raspberries, Red—Philadelphia, Turner, Cuthbert, Shaffer. Black—Souhegan, Gregg, Ohio (late), and native varieties. Blackberries—Windom, Lucretia Dewberry, and Snyder.

The reports that have now been considered have especial value, coming, as they do, from regions where severe droughts were experienced during the fruiting season, and are, therefore, worthy of the attention of cultivators generally of these fruits.

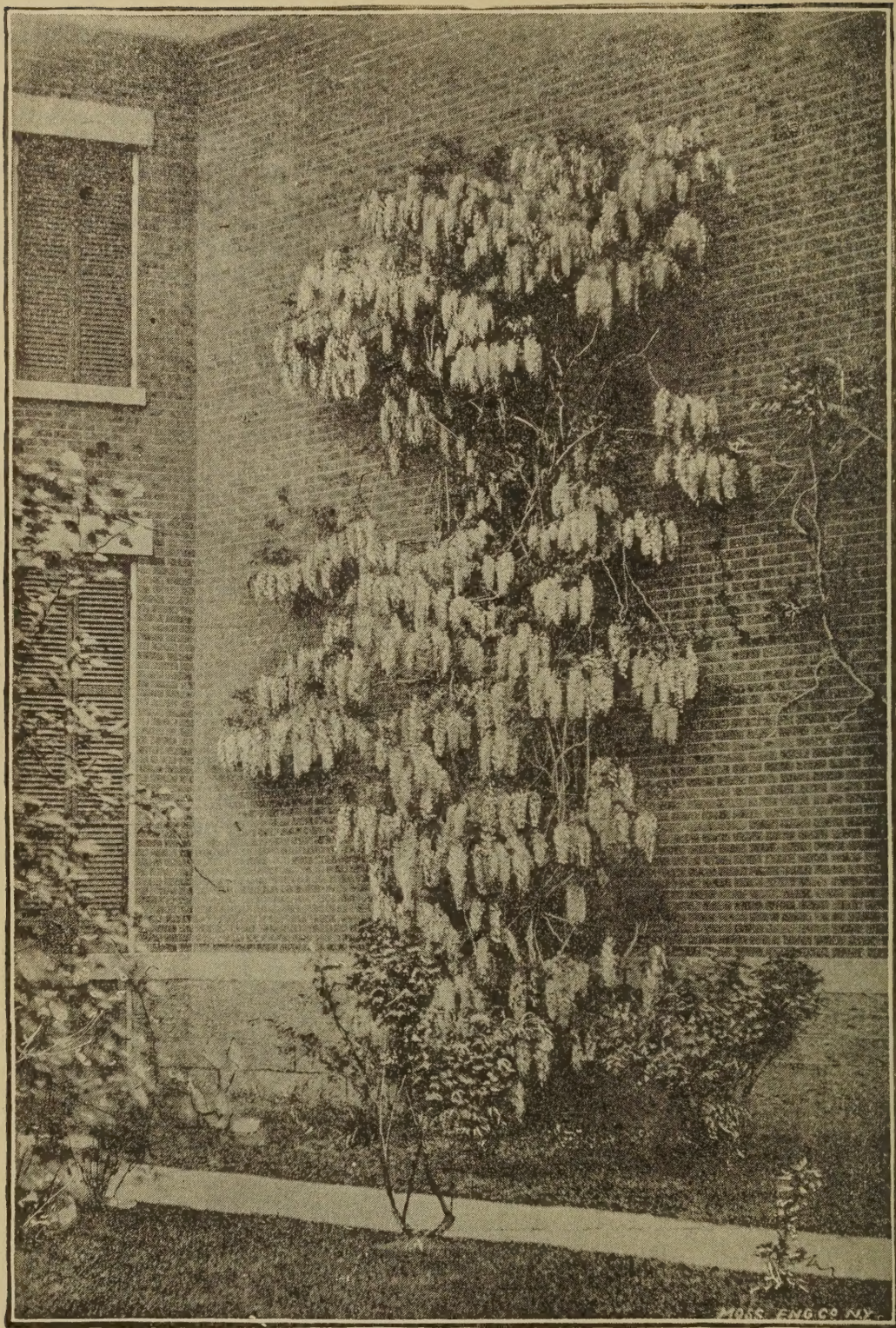
THE CHINESE WISTARIA.

All of the hardy ornamental climbers are justly held in high esteem. The Virginia Creeper producing a heavy shade, and with its deep green color grateful to the



WISTARIA ON PORCH AND EAVES.

sight, its changing autumn hues, its healthfulness and abundant vitality, is adapted to the most extended use. The Aristolochia is grand in its massive foliage. The Climbing Bittersweet is especially attractive by its orange-colored autumn fruits, the Trumpet Creeper by its large scarlet flowers. The Honeysuckle, and the different



CHINESE WISTARIA TRAINED TO HOUSE WALL.

varieties of Clematis, please by their special forms of beauty. But in picturesqueness and wealth of beauty the Chinese Wistaria, when in bloom, surpasses them all. In fact, its individuality is so strong that it cannot well be compared to any of the others. The illustrations here presented, made from photographs, show what a mass of bloom this plant displays in spring time for our admiration. The long, pendent clusters, of pale blue hue, are composed of numerous pea-shaped blossoms which emit a delicate and pleasing fragrance.

TREES IN HISTORY AND MYTHOLOGY.

A youth once rode into a forest, and asked of the trees :

" O, if ye have a singing leaf,
I pray you give it me."
" But the trees all kept their counsel,
They said neither yea nor nay ;
Only there sighed from the Pine tops
The music of seas far away ;
Only the Aspen pattered,
With a sound like the growing rain,
That fell fast and ever faster,
Then faltered to silence again."

TENNYSON tells us of the talking Oak, but to us, who are less fortunate in poetic imagery, the trees are speechless ; if the birds understand the language of rustling leaves, they keep it a secret from us, who would fain open and read this page in nature's volume.

Sacred history is full of allusions to trees in their various stages of growth and abundance. The first sin of our common mother was in partaking of the forbidden fruit from the tree in the garden of Paradise. At the foot of Mount Lebanon eight gigantic Cedars stand as the only representatives of the once immense forests. The prophecy concerning them has come to pass, "They shall be few that a child may count them." The Olive, the Fig and the Oak are likewise often referred to in the sacred Scriptures. We read of the righteous as representing a tree of life, and they are declared to be like a tree planted by the rivers of water, while the wicked are likened to a Green Bay tree, and the ungodly to an Oak whose leaf fadeth. The Green Bay tree is a species of Laurel.* PLINY collected and recorded the information and opinions concerning it current in his time. It was held sacred to APOLLO, and used as a symbol of victory. It was used by the Romans to guard the gates of CÆSAR, and that worn by AUGUSTUS and his successors had a miraculous history. The grove at the Imperial villa having grown from a shoot sent by LIVIUS DRUSILLA from heaven.

Among the Indians of Brazil there is a tradition that the whole human race sprang from a Palm tree. It has been a symbol of excellence for things good and beautiful. Among the ancients it was an

emblem of victory, and, as such, was worn by the early Christian martyrs, and has been found sculptured on their tombs. The Mohamedans venerate it. Certain trees, said to have been propagated from some originally planted by the prophet's daughter, are held sacred and the fruit sold at enormous prices. The day upon which CHRIST entered Jerusalem, riding upon the colt of an ass, is called Palm Sunday, being the first day of the Holy Week. In Europe real Palm branches are distributed among the people. GÆTHE says :

" In Rome, on Palm Sunday,
They have the true Palm,
The cardinals bow reverently
And sing old psalms.

Elsewhere these songs are sung mid Olive branches ;
More southern climes must be content with the sad
Willow."

The books relating to the religion of Buddha, were nearly all of them written upon the leaves of the Fan Palm, and by missionaries they have been used in the place of paper. The noble aspect of this tree, together with its surpassing utility, has caused it to be called "the prince of the vegetable kingdom," and it has been immortalized in history, mythology and poetry.

A Cypress tree in Somma, Lombardy, is said to have been standing since the time of JULIUS CÆSAR. NAPOLEON, in making a road over the Simplon, deviated from a straight line that he might not be obliged to cut it down. Cypress wood is very enduring, and for this reason, no doubt, it was used for mummy cases and statues. PLINY tells us, a statue of JUPITER carved from Cypress wood remained standing for six hundred years. In Turkish cemeteries it is a rule to plant a tree of this variety at every interment. CYPANISSUS, a beautiful youth, was transformed into a Cypress by APOLLO, that he might grieve all the time. The Cypress is an emblem of mourning, and SCOTT thus writes :

" When villagers my shroud bestrew
With Pansies, Rosemary and Rue,
Then, lady, weave a wreath for me,
And weave it of the Cypress tree."

There is a familiar legend about the Black Thorn,* a species of the Plum. It is said that JOSEPH, of Armathea, planted

* *Laurus nobilis*, the Sweet Bay, is the Laurel of the ancients, from which they made crowns for their victors. It is said to be the *Ezrach*, or Green Bay Tree of the Bible.—ED.

* *Prunus spinosa*.—ED.

his staff, that it grew, put forth its blossoms every Christmas day afterward until it was destroyed by a puritan soldier, who was wounded by a splint from the tree and died from its effects,

Branches of the White Thorn* were used for the nuptial chaplets of Athenian brides, and a tree of this variety is still alive that was planted by MARY Queen of Scots.

There is a tradition among the French peasantry that groans and cries issue from the Hawthorn on Good Friday, doubtless arising from the superstition that CHRIST'S crown of thorns was made from this bush.

The legend that the cross of JESUS was made of Aspen wood, and hence its leaves were doomed to tremble, has led an unknown poet to show his ignorance of the true cause in the following lines :

" Ah, tremble, tremble, Aspen tree,
I need not ask thee why thou shakest,
For if, as holy legend saith,
On thee the Savior bled to death,
No wonder, Aspen, that thou quakest,
And till in judgment all assemble,
Thy leaves, accursed, shall wail and tremble."

The real cause of the mobility depends

* *Cratægus oxyacantha*.—ED.

on the fact that the leaf stalk of the Poplar is flattened laterally, and even the slightest wind produces a motion. Since this is so, we may be sure that the Aspen will continue to wail and tremble, but not because its leaves are accursed.

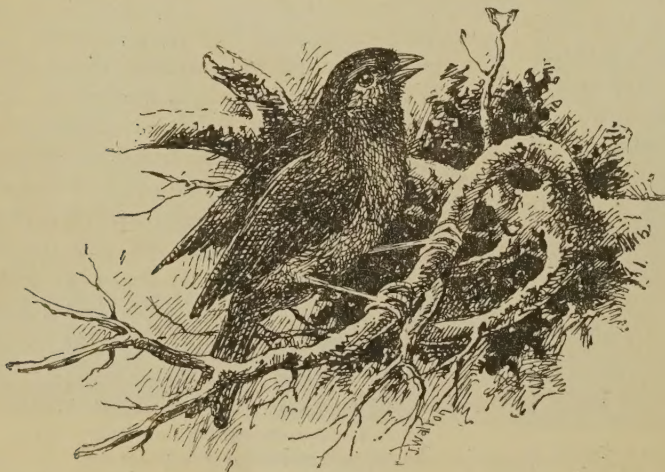
There is an island in Lake Wetter, Scotland, upon which stood twelve majestic Beach trees, called the twelve apostles. A jealous peasant cut one of them down, thus effacing from the group the traitor, JUDAS, who, he declared, should have no lot with the faithful.

In Latin myths the Fig tree was held sacred to BACCHUS, and employed in religious ceremonies. A tree of this variety is said to have overshadowed ROMULUS and REMUS, the twin founders of Rome, in the wolf's cave. The sacred Fig is chiefly planted in India as a religious object, being regarded as sacred by both Brahmas and Buddhists. A gigantic tree of this variety, growing in Ceylon, is said to be one of the oldest trees in the world, and, if tradition is to be trusted, it grew from a branch of the tree under which GAUTAMA BUDDHA became endued with divine powers, and has always been held in the highest veneration.

F. L. SHELDON.

WINTER BIRDS.

Perhaps not every one knows the common yellow bird, *Chrysomitris tristis*, so conspicuous in summer, with his black and yellow plumage, stays here all winter ;



THE YELLOW BIRD—*CHRYSOMITRIS TRISTIS*.

but he does. At his autumn molt he assumes the dull tint of his female, and so is less noticed. In spring, a thin outer layer is cast off leaving his summer coat new and bright without the trouble of molting ; the change as observed in cage birds being complete in a day or two. The indigo bird, bobolink, etc., follow the same fashion. Any calm, mild day you may see flocks of hilarious yellow birds careering through the air far above the highest summit of the hills, but they vanish at

the first hint of severe weather ; they seek the shelter of the deep valleys of the larger streams, defended also by heavy bodies of forest, where the roar of the tempest subsides to a far off murmur, and the snow-flakes, driven upon the uplands with such fury, sink softly down to decorate the trees and bushes. Here are south

lying banks from which the sun soon gnaws the snow, and large areas steep, thorny and bushy with many seed-laden weeds. The great Hemlocks shed their myriad seeds, each one of which crushed between your thumb nails yield a drop of oil, and judging from his actions the yellow bird finds winter as enjoyable as summer.



THE TREE SPARROW—*SPIZELLA MONTICOLA*.

land was desolate. All at once a song began from a bough ten feet above my head; an arctic sparrow sat there alone, the very soul of content and cheerfulness, apparently. Like other southward-faring birds, his true song is not in use during his tour, but his chirrups and twitter are well selected and are very pleasant to the ear; no midsummer thrush ever made sweeter melody than this sparrow, so much depends on accessories and background. I listened, much surprised that any bird would open his mouth on such a gloomy morning, but I soon reflected that our country, tough as it looked, was almost sub-tropical compared to his own, and that vast jungles of rich seed-bearing weeds spread far and wide. Why shouldn't he sing?

A furious gale from the west, almost unendurable upon the uplands, roared through the woods, but the sun was bright, after a night of intense cold, one midwinter morning.

The wind moderated as I went down into the valley, and close in the lea of hills and woods, a little nook was calm and warming in the sun. A great flock of arctic sparrows were having a jubilee here, chasing each other on foot, picking up the food which seemed so abundant amidst the dead Teasels, or flitting about, each doing his part toward a silvery tinkling chorus, which went right on, sweet and melodious, against the steady roar of the wind in the upper woods. The Hemlocks that swarmed up the craggy sides of the cañon struggled against the tempest, but below the stormy savagery of winter this little current of song flowed forth accompanied



THE SHORE LARK—*OTOCORIS ALPESTRIS PRATICOLA*.

by the great voice of the gale, rippling as sweetly as if the sun was that of spring.

A favorite of mine is the shore lark, *Otocoris alpestris praticola*, which is resident except for a few weeks in December and January. Perhaps he is not far off even then, and he is here in February without fail, singing his full song and soon mating. He makes his nest on the first bare ground he finds, and the young can fly about the time the earliest plowing is done. His young, matched in color with the gray dead stubble, are familiar with snow flurries and frosty nights; quite heavy snows must fall on the eggs some years. He belongs to the bare, brown earth, he never



THE GREAT SNOWY OWL—*NYCTEA NIVEA*.

served you are likely to call him a lone snow bunting, the more so because his cry on the wing is nearly the same.

The winter or late autumn brings, at times, a visitor from the far north, the great snowy owl, *Nyctea nivea*. I came upon him the other day crouched in the long, dead grass which whistled in the cold wind, while the snow squalls swept along the far horizon, he turned his great black eyes on me for a moment and took wing. No bird that I ever saw has such motive power, the first flap of his broad wings sends him far forward or upward. Nothing reminds you of the steady, straight flight of his congeners; he bounds up and swoops down, turning in any direction with all the ease and lightness of the swallow. A few seconds and his great bulk is a speck at the horizon, a moment more and he has vanished, while you still stand gazing in wonder at his grace and speed and power. He certainly has small reason to forego his southern trip; when the arctic winter comes on breadths of latitude can be nothing to him. A few days, or a fortnight at most, will allow him to pass over the stretch that separates his arctic home from us, and still give him time to stop for

perched in a tree or bush in all his life, and often hides behind clods or stones as you come near until you could touch him with your hand, if you knew where he was. He is partially nocturnal, up and doing as late as 10 o'clock P. M., at least, and delights in a calm snow fall in the evening. The same feeling of rest and peace that haunts the summer dusk arises as you listen to two or more shore larks answering each other out of the darkness, while the trees outline themselves with white against the dusky background, and no sound is heard save the soft crush of the falling flakes and their simple twittering songs; the shore lark's season of song is mostly in the cooler months, beginning in October and ending in July. He has a pair of horns (the long ear coverts) which give him his name of horned or crested lark, but they are not very conspicuous, and if not closely ob-

rest and feeding by the way. His natural vigor and power of wing is so great that the severe cold of the sub-polar regions, and the passage of the great distance that separates it from us, are both sustained with ease, evidently, by this magnificent bird.

The little screech owl, *Scops asio*, resident the whole year, in spite of his name and



THE LITTLE SCREECH OWL—SCOPS ASIO.

the old world superstition concerning him, has a pleasant voice (it can hardly be called a song, perhaps, though this is plainly its intent), especially in winter, and his note is the very first premonition of spring, a month or more before the hardest blue bird has come. To hear his soft, vibrating cry some calm evening is to feel that a bound has at last been set to winter, that spring, though distant, is on her way. The fog clouds had swept the hill tops for days, and every tree, bush and weed was heavily decorated with the rarest frost-work, the trackless snow stretched away far as eye could reach amidst the great tree trunks, their huge branches were lost in a maze of fog and frost foliage, there was a silence that might be felt, save when the screech

owl's call echoed through the forest—a notice to winter to quit. There was snow and cold and rime, winter had full possession, but this voice brought a vision of galaxies and constellations of blue Violets and bursting buds and all the life and light of spring.

E. S. GILBERT, *Canaseraga, N. Y.*

ASPARAGUS ON UNMANURED SOIL.

At a late meeting of farmers in Boston, the remarkable statement was made, and corroborated by several of the participants familiar with the case, that on the Asparagus ground of the two Messrs. COOLIDGE, JOSHUA and JOHN, who grow some of the best "grass" that goes to the Boston market, no manure at all has been used for at least ten years, other than the tops, and a liberal annual dressing of salt, usually taken from pork or fish barrels. People were long prevented from raising this most excellent vegetable because of the preposterous requirements laid down by those who first wrote about it. The fact is, that it is the most easily grown and simplest in its requirements of any vegetable, while there is none more healthful or more enjoyed, coming before any other, and having a distinct and agreeable flavor all its own.

Its use is especially recommended as a tonic for the nerves. The chief requirements are dry, warm, fertile soil, some shelter from high winds, and room enough for its mass of roots. It will do well even in an upland meadow, without culture or manure and surrounded by other growths, if the soil is good and if it is not crowded or injured by cattle. About four feet by two is the preferred distance apart. A bed will last a lifetime once planted and not abused. Its few demands for care make it especially desirable for a farmer's garden. The growth and size of the sprouts depend much on the full, uninjured growth of the tops after cutting ceases, about mid-June, when green Peas come in. Manure enables more good sprouts to be grown on less area, and often tenderer, but not richer.

W.

FLORIDA AND ITS FLOWERS.

PART 2.

Among the most curious and interesting of the wild plants common at the North, is *Sarracenia purpurea*, variously known in different localities as Huntsman's Cup, Sidesaddle Flower, Pitcher Plant, &c. It is very easily cultivated, a common stoneware milk-crock filled with sphagnum, the ordinary packing moss used by florists and nurserymen, and saturated with water is a fac-simile of its native home, and a plant will thrive in such a crock as long as it has an abundant supply of water.

In Florida there are several species, though I have never seen but two of them, and one of those I have not examined, as I have only seen it from the car window in passing through West Florida. This species, *Sarracenia Drummondii*, is the giant of the family, as the leaves grow to the height of two feet, and the large, reddish-purple flowers are borne on long stems well above the leaves.

In this part of the State we have only one species, *S. variolaris*. The leaves of this species are from six to twelve inches long, erect, and spotted with white and veined with purple. The flowers are bright yellow and very showy. Either of these species would probably grow readily in the house if given a rich soil and plenty of water. They would probably do better in a simple Wardian case, a box with a glass top will do, in which the temperature would be more equable and the evaporation much less.

Canna flaccida has been offered by one or two northern dealers, but never has been pushed as it deserves. The plant resembles the other Cannas in appearance, the stems grow to a height of from two to four feet. The flowers are very showy and attractive, yet no one, except a botanist, no matter how familiar with other Cannas, would suppose that the flowers of this species belonged to the same family. The blossoms are much larger than those of any other species, not excepting the famous *Canna Ehemanni*; in shape, general appearance and texture they resemble the blossoms of an Iris. They are very fragile, and the curiously crimped edges are almost lace-like in their delicate beauty. In this

State, where the ground never freezes, it soon becomes a troublesome weed, as it spreads very rapidly by means of underground stems or suckers. But at the North all roots left in the ground would be killed by the cold every winter, so that there would be no danger of its spreading more rapidly or more widely than was desirable.

Many different members of the great *Amaryllis* family are quite common in cultivation at the North, and are deservedly very popular. I have already described the Fairy Lily, which belongs to the *Amaryllidaceæ*, but we have another member of the family which is still more showy and attractive. *Crinum Americanum* is a native of very wet places in or along the edges of streams of running waters, yet in cultivation it thrives in ordinary soil. It is a bulbous plant, but the bulb has a long, thick neck, and is not easily dried off, and will not keep in a dry state as long as most bulbs, yet it can be kept perfectly dry for several weeks without injury. The leaves are usually erect, the longer ones somewhat drooping, strap-shaped, eighteen to thirty inches long and evergreen. The flower stalks hold the blossoms well up above the leaves, each one carrying from two to five or six large, pure white and very fragrant flowers. There are three sepals and three petals all exactly alike; they are only from one-half to three-fourths of an inch broad, but are from two to three inches long, which would make a blossom from four to six inches across if the petals were not recurved so that it does not appear as large as it really is. When growing wild the same bulb seldom or never blooms more than once in a season, and a flower stalk seldom bears more than two or three blossoms. But it improves very rapidly under cultivation, quite frequently blooming two or three times in one year, and each time bearing from three to six flowers. It does so well here in cultivation that I see no reason why it should not succeed as a house plant at the North. The essential requisites for success would be very rich soil, leaf-mold or muck and thoroughly decayed stable manure, plenty of light, heat and water through the growing season.

It could be easily kept in a light cellar, where it would be cool but not freeze, being careful not to let it get too dry. Though evergreen when untouched by frost, yet if the leaves are frozen down the plant will lie dormant for two or three months without any leaves or any appearance of growth.

Most flower lovers admire *Tigridias* very much. We have, in Florida, a native bulb, *Nemastylis cœlestina*, which belongs to the same botanical family, and has some of the same characteristics. The leaves, though smaller, bear a very close resemblance to those of the *Tigridia*. The bulbs are very small, the largest that I have ever seen was not over three-fourths of an inch in diameter, while hundreds of them bloom when less than one-half an inch through. The larger bulbs usually send up from two to four flower stalks, each bearing two or three blossoms that are from three to four inches broad. The color is a very rich, bright blue. Like those of the *Tigridia*, the flowers are very evanescent, opening during the night and fading before noon. The plant is a native of what is known here as "the flat woods," where the soil is very moist and rich. I do not know whether it will thrive as a house plant—should expect it to do so if the natural conditions are reproduced as nearly as possible.

We have, in this State, only one native species of Lily, *Lilium Catesbæi*. This is also most commonly found in the moist soil of the flat woods, but does grow occasionally on the dry knolls, which are common through the flat woods country. On these knolls the bulbs are always larger and finer. It is remarkable for the fact that, though the bulbs are always quite small, the blos-

soms are very large. The largest bulb that I have ever found was not larger than an English Walnut, while the average size of blooming bulbs would not exceed that of a Hickory nut, and many bulbs not larger than a Filbert will be found bearing a fine large blossom from three to four inches long and nearly as broad. The flowers grow upright at the top of a stem from one to two feet high. The color is bright scarlet, variegated with yellow and purple.

The foregoing brief descriptions give but a very faint idea of the beauty of some of our wild flowers. Besides these, the list might be almost indefinitely extended. I would like, if time and space would permit, to mention some of our native *Ipomœas*, including the true Moon Flower and several others as worthy of general cultivation. Or some of the five or six beautiful and desirable species of *Asclepias*, including one with ornamental foliage, which is very handsome, the leaves veiny, delicately marked and veined with white and red upon the green surface.

Or, I would describe a few of our beautiful species of *Leguminosæ*; or call attention to *Dipteracanthus noctiflorus*, which is often mistaken for a wild *Petunia*, though it grows on our poorest, driest soils. Or to *Erythrina herbacea*, covered in early spring with long spikes of bright scarlet blossoms, almost dazzling in the brilliancy of their coloring; but I forbear. The above will show that if the flower lover in Florida does not succeed with the varieties formerly cultivated at the North, it is not necessary to allow the yard to become a barren waste of sand when so many beautiful native plants are waiting to be given a place there.

W. C. STEELE.

PEACHES IN OHIO.

The Peach shares, with the Strawberry and the Grape, the distinction of being one of the fruit trio most eagerly sought after and eaten, and I am inclined to think that a ballot taken in those regions where the Peach can be grown would give a large plurality in favor of it above any other kind of fruit.

"Peaches and cream" is an acknowledged synonym for the highest gastro-

nomic pleasures, and "peachy bloom" and "as beautiful as a Peach," are common expressions of superlative admiration.

In spite, however, of the general popularity of the Peach, probably less than one-third the inhabitants of the United States get it in its greatest excellence. Not only the residents of the principal cities but the suburban residents of vil-

lages, and even farmers, go to the market for their Peaches, and get that which has been shipped hundreds of miles, and picked at least two weeks before ripe—before any of that luscious, sugary richness, just preceding decay, has developed.

Neither shippers to distant markets nor dealers can be blamed for this. In all the earlier varieties full maturity is followed at once by decay, and neither forwarding companies nor green-grocers care to handle rotten fruit. For the majority of buyers, whether their Peaches come from Arkansas, or California or Maryland, there is, therefore no help, unless there shall be discovered a variety that will ripen in transit, like the Bartlett Pear.

I have purchased California Peaches in Chicago, and Virginia peaches in New York, of different varieties, with a view to judging whether any particular kind was better than another under the conditions necessary to successful shipment, and have always found the white fleshed Peaches with more flavor than the yellow ones.

Some Stump and Oldmixon Free eaten in New York, last August, had much of the real Peach goodness, while Early Crawford and Barnard, in the same grocery, were hardly worth the eating. Very late Peaches retain their natural flavor better in shipment, for two reasons: they are generally drier and rot more slowly than early ones, and the coolness of the season enables growers to let them approach more nearly to maturity before picking.

But I started out to say something to induce people to plant and care for Peach trees, who think they cannot raise them, or that the raising will not pay them.

So many new and early and late Peaches have been originated in the last few years that the season has been greatly lengthened, and it is not difficult to have them on the table for one hundred successive days. In the summer of 1887 we had on our table Strawberries and cream on July 8th, and the following evening ripe Alexander Peaches with cream.

In 1888 Peaches were late and Strawberries a short crop, so there was an interval of twelve days between the last Kentucky Strawberries and the first early

Peaches, but from the 20th of July to the 27th of October there were but five evenings when we did not have on the table ripe Peaches sliced in Jersey cream, and these five meals were not skipped for want of Peaches.

I sold several bushels of Beer's Smock after October 20th, and a large grower in an adjoining county had two hundred bushels on hand at that date. The first to ripen are Alexander, which are followed immediately by Early Beatrice. Then comes Hale's Early, Yellow or French Rareripe, Early Crawford, Early Orange, Oldmixon Free, Stump, Early Barnard, Late or Gardener's Orange, Late Crawford, White Heath Cling, Smock Free, Foster, Beer's Smock and Salway. Alexander and Hale's Early are clingstones, while Beatrice is sufficiently free to permit slicing for the table. All three of these varieties rot very quickly, and grocers of experience will not pay more than half the retail price.

On this account I have adopted the plan of packing in quart Strawberry boxes and sending them direct to consumers. As ordinarily grown Alexander and Hale's go from eleven to fourteen specimens to the box, while of Beatrice it takes from fourteen to eighteen. They are not picked until fully ripe, and I think there is a gain of quite five per cent. in size over Peaches picked a week earlier. There is a gain of about ten or twelve per cent. in measurement, as a bushel will fill thirty-six, or even more, boxes, on account of the fruit not packing as closely in the small packages. The fruit sells quickly at ten cents per box, but even at this price these early Peaches are not very profitable, as they are more liable to rot, and are a constant prey to bees. So thickly was the fruit covered with bees last summer that I have counted as many as seven on one Peach. A timid person could scarcely be induced to go near the trees, and I am satisfied that at least one-third the crop was destroyed by the bees.

The Yellow Rareripe is the first yellow Peach to ripen, and although apt to over bear and be small, it is an excellent and profitable variety, and should be in every collection, even if a man has but one tree. This variety sold readily at sixty cents a peck.

The finest Early Crawfords brought

seventy-five cents a peck, but they were not picked until so ripe that it was difficult to handle them, and were sold to be used immediately. I think there is no fruit in the world so beautiful and luscious as a fully ripe, highly colored Early Crawford, and I might add that there are few poorer fruits than the same variety picked green and shipped several hundred miles in hot weather.

Early Barnard and the Orange are excellent producers, and though the fruit is not always very attractive, it can always be sold on its merits, as both varieties are yellow fleshed and have a small pit.

The Late Orange or Gardener is a local variety, originating in Freedom, Ohio, with CHRISTOPHER GARDENER, and is one of the most productive and desirable of all October Peaches. The tree is extremely hardy, and though apt to be of only medium size, is profitable. It brought \$1.60 per bushel in market where late Crawfords sold at \$2.00.

The Smock is too well known to need any description. Salway promises well, and Foster is beautiful but seems a shy bearer.

My youngest orchard, containing seventy-five trees of the above varieties, and planted in the spring of 1882, produced a little over \$70 worth of fruit in 1888. It was cultivated two years in Strawberries, and then lay in sod until last spring, when it was plowed and cultivated in Corn. An orchard in an adjoining county has three and a half acres, planted in 1880, and it produced in 1887 and 1888 fruit to the nett value of \$600. Another orchard, in the same county, of ten acres, planted in 1873, netted \$2,300 in 1887, and produced over two thousand bushels in 1889.

Five or six years ago a neighbor planted a dozen Peach trees in his garden. In 1887 he had a few, and in 1888

had seven bushels. A Smock tree, sold by me six years ago, and planted in a crowded corner of a village lot, between wood shed and a barn, produced nearly a bushel, in 1887. The Peach tree will thrive and produce in places where any other fruit tree would die, and seems especially fond of growing close to a building, with its roots down among the foundation stones. A little tree that came up close to the house foundation, last summer, has given me a hint that I shall act upon next spring. Its branches grow close against the stones, making a flat, fan-like tree, and I am going to plant three small trees at the south end of the barn, and at the proper time bud to desirable varieties. As the trees grow I will train them flat against the barn, and when old enough to bear protect them from the winter's sun and cold by hanging straw mats or evergreen boughs over them. In this way, I think, I can have Peaches in seasons when orchard trees are winter killed.

For three successive years, when attending the State Fairs, at Columbus, Ohio, I stopped at a house in the western part of the city, in the back yard of which stood three Peach trees which bore each year, although throughout that region the cold winters had destroyed the Peach crop. These trees were protected by brick buildings, and although the fruit was of poor quality, I think the Alexander or the Smock would have borne in the same situation.

On the matter of planting Peach trees, Mr. H. G. TRYON, President of the Ohio Horticultural Society, gives some sensible advice. He says: "It does not cost much to plant Peach trees; they cost but a dime, or less, each; they are easily removed if they cumber the ground, and if they bear, the reward far exceeds the trouble."

L. B. PIERCE.



FOREIGN NOTES.

CAMELLIA BUDS FALLING.

Amateur cultivators of the Camellia so often complain of the falling of the buds, we can probably render them no better service than to give in full, as we do below, an article on this subject from WILLIAM BARDNEY, which appeared a few weeks since in the *Journal of Horticulture*, and in which the various causes for this unsatisfactory result are carefully pointed out :

Every season many growers are disappointed through the buds of their Camellias falling prematurely, but the cause is often due to faulty culture and mismanagement. At this period of the year severe weather may be expected any day, and fire heat is often employed liberally to insure safety. The temperature is kept even higher during severe weather than previously, when the nights have been mild, and no fire heat was employed. The sudden change to a warm dry atmosphere is alone sufficient to result in the plants casting their buds. If frost could merely be excluded, having a temperature of, say, 35°, it would be better for the Camellia, but perhaps not so well for other plants in the same structure ; therefore it is often necessary to maintain a temperature at night ranging from 40° to 45°. The plants must then occupy the coolest end of the house, and not be stood on an open stage formed with wood scantlings so frequently employed in greenhouses. Through such stages the warm dry air as it rises extracts the moisture from the soil as well as from the leaves of the plants, with the result that the buds fall directly or a short time afterwards. If the stage is covered with zinc, and one or two inches of moisture-holding material placed over it, such as ashes, gravel, cocoa-nut fiber refuse, or any similar material, it will be much better for the plants. When strong fire heat is employed, syringe the stems and foliage of the plants just before dark, and again in the morning if they are dry. If this is done, other conditions that will be pointed out being properly observed, the buds will not fall.

Failure not unfrequently occurs through attempting to force these plants into bloom by a given date. If the change from the one treatment to the other is sudden, the buds or flowers when half expanded are almost certain to fall prematurely. They will bear forcing, but the change must be gradual. Plenty of moisture must be applied both to the plants and the atmosphere, and in no stage must strong dry heat be maintained about them. More buds probably fall through trying to force the plants into bloom than from any other cause. The best and safest method of growing Camellias to yield their flowers early is to assist them early in the season to make their growth. One season's early growth, if the plants are kept under glass the whole of the year, will result in flowers by Christmas with cool autumn treatment. By growing them early for several seasons they can be had in bloom two or three months sooner. For the majority of people Christmas is early enough now that Chrysanthemums can be had in abundance through the whole autumn. Directly growth has been made the plants must be gradually hardened to cool, airy, and drier treatment until the buds form at the extremity of the shoots. At this juncture amateurs often place their plants outside for the remainder of the summer. This can be carried out successfully by those who are familiar with every detail of the plant's requirements ; but my advice is, keep the plants under glass, and the buds will gradually develop, and two or three risks are avoided. When placed outside the time comes for housing the plants, and fatal results often follow. They are removed from a genial position and moist surroundings outside to ungenial air inside ; perhaps stood on an open stage in a dry structure. This sudden change is followed by a check to the plants, which ends with the flower buds falling.

Another certain cause of failure is allowing the plants to become dry at the roots. In no stage of growth should the soil become dry ; it must not only be

kept moist on the top, but through to the base. It is easy to err in watering by attempting to give just sufficient and no more. This often results in their getting too dry. It is safer to give a little too much than too little. At the same time the soil must not be rendered sour and unsuitable for the roots to work in by saturating it with too much water, or the buds are equally certain to fall.

Overfeeding with strong stimulants in the form of liquid manure will end in the plants throwing their buds. Always supply liquid manure in a weak state, and soot water is beneficial if given clear, not muddy. If less liquid manures were given, and some reliable artificial manures applied to the surface of the soil in small quantities, at intervals of three weeks or a month, fewer failures would follow. Camellias must have fertile soil, or they suffer from exhaustion, and the buds will fall the same as when overfeeding is practiced.

Unripened wood is a certain cause of the buds failing. The wood ought to be brown to the tip by the time the buds commence forming, then other cultural requirements being supplied, the plants will be certain to retain them. Wood that is green part of its length instead of brown will retain the buds until a certain period, or until they attain a certain size, when off they come. Plants that make their growth early always set a greater percentage of buds, and also produce finer flowers than those that make their growth late in the season. Conditions of health and the food supply being equal in both cases.

Strong insecticides after the buds are formed invariably result in the plants casting them. One strong application might result in the buds falling, while two or three weaker ones might be given without the slightest injury. Plants that are allowed to become covered with insects are liable to lose their buds, however well they may be treated in other respects. If insects exist sponge them off, or brush them from the old wood, using a weak solution of soft soap and water, fir tree or lemon oil. After flowering they may be washed with a solution of petroleum and water, at the rate of one ounce of the former to each gallon of water; this will destroy scale and eradicate it, if persisted in during the

season of growth. These are some of the chief causes of Camellia buds falling, but any check or combination of causes will bring about the same unsatisfactory results.

BORDERS OF MIXED PLANTS.

The following remarks on the arrangement of plants in borders, by a writer in a late number of the London *Journal of Horticulture*, are worthy of being more widely read:

I have said that hardy plants should be disposed in wide and long borders, and the reason for making that statement is that we naturally expect flowers in these borders at all seasons when they can be had out of doors. We also expect a continually shifting variety of plants with a good deal of overlapping, of course, but no doubt one of the charms of the mixed border is the expectation of fresh kinds of flowers coming out continually throughout the season. That being so we must have room, and a wide border is the consequence. But many of the finest out-of-door flowers are of noble proportions as to height and width, and in order to secure due effect with these an extended border is important. Then as to limiting the choice of plants. It must not be supposed that it is meant thereby that the collection should be devoid of variety. Too much cannot be secured so long as the necessary conditions are fulfilled of beauty, showiness, and, if at all possible, sweetness of scent. But what is condemned is the not uncommon practice of picking up all sorts of weedy rubbish so long as it is called herbaceous, and taking up room that could be better filled. Another not uncommon failing with people who plant borders of hardy flowers is that of avoiding the flowers which have been improved and multiplied in variety. For my part I see no harm in making a border gay in spring with Crocuses, Tulips, Polyanthuses, Primroses, Auriculas, Wall-flowers and Anemones. These do not detract from the beauty of distinctly alpine and herbaceous plants which flower with them. In the same spirit I do not exclude from these borders tufts of Pansies, clumps of sweet Pinks and Carnations, Roses of all sections, Chrysanthemums, Phloxes, Delphiniums, Hollyhocks, Pentstemons and many others

grown in large clumps. Of Dahlias the Cactus varieties are especially suitable. These and other kinds for this purpose are best grown, not from cuttings but from divided tubers. These flower more freely, and I imagine do not grow quite so much to foliage as plants from cuttings do, and certainly they pass the winter much better. We have so many good perennial plants to select from that annuals do not occupy much space in our hardy borders. There are, however, a few so distinct and good that we try to find room for them.

As to arrangement, it is very easy to say, put the tall plants at the back and the smallest at the front, placing those of intermediate sizes in the space between. Such advice rigidly carried out would insure a hotch-potch without character, effect or beauty. Some hardy plants in addition to the beauty of their flowers are, as regards form, worth cultivating for that alone. Such plants, of course, need to stand in some degree clear of others. *Solidago canadensis*, *Iris ruthenica*, *Spiræa Aruncus*, *Anemone Japonica* are examples of this; but there are others, such as the common white Lily, Carnations, *Gladiolus*, *Chrysanthemums*, which ought to be placed very near the front of the borders. A well arranged border may in summer and autumn have plants three feet in height growing close to the front edge. Of course, many of the plants are standing perfectly clear, the ground being carpeted with dwarfer flowering plants and those which have flowered during the spring and summer months, while the back of the border is brought to proportion by clumps of tall Hollyhocks, Phloxes, Michaelmas Daisies, single herbaceous *Chrysanthemums*, &c.

As to color, if a thoroughly effective border is wanted, it must be arranged so that its effect as a whole may be taken in. It is hardly possible to have too much white. That secured, yellow is of the greatest importance for giving brightness. White and yellow of themselves will make a most effective color arrangement, and, of course, others, such as red, blue, and secondary shades and tints must be made the most of for changes. For purposes of coloring, *Delphiniums*, *Snapdragons*, *Tritomas*, *Lupinus polyphyllus*, *Aster bessarabicus*, dark Phloxes, and *Pentstemon*, Dahlias Juarezi and Glare

of the Garden, *Schizostylis coccinea*, *Gladiolus Brenchleyensis*, *Agapanthus umbellatus*, *Lilium tigrinum* fl.-pl., and *L. umbellatum* are flowers which occur to me as of great value for coloring. Under certain conditions I should not hesitate to employ *Pelargonium* Henry Jacoby and *Clematis Jackmanni*. Meanwhile I might advise that in order to improve a border of hardy flowers do not stick at a sentiment and keep out flowers which, although not strictly herbaceous or hardy, would be found of value if freely used.

THE NEW VEGETABLE.

An English firm proposes to call *Stachys tuberifera* the Chinese Artichoke; it might be called Chinese Potato just as well. Knot-root is another name proposed, and it is quite appropriate if the appearance of the tubers is considered, but, after all, that is a knotty (naughty) name; and why is it necessary to hitch another name on to it? Why is not *Stachys* good enough, as the *Gardeners' Chronicle* asks. We have all learned to say Potato and Tobacco, and all European nations use the last name slightly modified. As to the former, what doubt can there be that Potato is not better than the *Pomme-de-terre* of the French, or the *Erdapfel* of the Dutch. It is no more difficult to say *Stachys* than *Petunia*, or *Verbena*, or *Phlox*, or *Zinnia*, or a troop of other botanical names now in common use. Even our old favorites, *Rose* and *Lily*, how far are these names from the botanical forms—only that of an altered letter or two! If, then, the *Stachys* is a plant that is coming into use as a garden vegetable, let us say *Stachys* and have done with it, and not go into the manufacturing business in order to turn out a bran new name to add still more to the complexity of our garden vocabulary.

To remove any timidity that might be felt in speaking the name, it may be said that it is pronounced as if spelled *stakis*, with the long sound of *a*—this, however, Europeans would make broad, and for any of us it is a matter of choice.

An English gardener gives the following recipe from the cook at his place: Soak in cold water five minutes, rub well with lemon, throw into boiling water with a pinch of salt for ten minutes, strain and shake up with cream, or

maitre d'hôtel butter, must be served at once.

He adds: It is almost in daily demand here, and in various ways. The house-keeper says, from her experience, it is an excellent ingredient of mixed pickles, but not so good as a pickle by itself. Our yield this year is at the rate of about five tons per acre. I believe it capable of doing much more.

FORCING HERBACEOUS PLANTS.

Of all the herbaceous plants used for pot culture the white-flowered *Spiræa* (*Astilbe Japonica*) is the most popular, and is now so extensively grown, that it would be difficult to find any one unacquainted with it. From February to mid-summer it finds a place wherever flowering plants are required, and it may even be had in bloom at Christmas, though plants forced so early are rather too tender to be used except for special purposes. As with all other ordinary subjects, considerable difference may be seen in plants that have received the most favorable treatment and those that have been less fortunate, more especially in those that are forced early. Where it is intended to force early the first point is to secure plants which were ripened off early in the autumn, and to see that they have good strong crowns. Before introducing them into strong heat they should be placed where it is just warm enough to induce them to make root without unduly exciting them into growth. After they have made some fresh roots they will stand a higher temperature. The crowns should be kept covered with fiber refuse, or other light material, until the flowering stems are well started. As soon as the plants are well into growth liquid manure may be used regularly, but not too strong.

Dicentra (*Dielytra*) *spectabilis*, a beautiful hardy herbaceous plant, is very useful for pot culture, the long pendulous racemes of rosy pink flowers and the soft

green foliage being so distinct. When good strong clumps are potted up and grown well, they are, when in bloom, very effective in the conservatory. Unfortunately, both the foliage and flowers are very tender, and consequently do not bear the rough treatment which market plants are usually subjected to, otherwise I believe this would be among the most popular. However, in private establishments where large conservatories have to be furnished it should always find a place. For forcing, good strong clumps should be potted in seven-inch or eight-inch pots, placed in a cold pit, and well covered with Cocoa nut fiber refuse or ashes. A very little warmth will be sufficient to start them into growth. Those that are started early in the season should have a covering of fiber refuse, which should not be removed until the plants have made about four inches of growth. If not started in this way they are liable to flower prematurely, the flowers beginning to open quite close to the pots. As soon as the plants are well started into growth, they should be brought up near the glass. A light, airy position in an intermediate temperature with a liberal supply of water will be all that is necessary to secure good results, while a high temperature or a shady position will be ruinous to this beautiful plant.

Spiræa palmata, another beautiful plant for forcing, will succeed well under similar treatment to the last, but requires a little more assistance in the way of liquid manure to finish the plants off well. Compact clumps of about six good crowns will make a good display. If the clumps are large and spreading they may be broken up, selecting only the strongest crowns for the pots. To finish the plants off well they require careful attention, although after the foliage is well developed it would be difficult to over-water them, yet in the earlier stages of growth too much water is very injurious.

A., in *The Garden*.



PLEASANT GOSSIP.

THE RESURRECTION PLANT.

Will you inform your readers whether the Resurrection Plant is a *real, live plant*, or only a dead moss, very sensitive to moisture, as most mosses are?

C. McL., Sydney, N. S.

What is most commonly known as the Resurrection Plant is *Selaginella lepidophylla*, a native of Mexico. It is not often to be found in the trade as a *real, live plant*, for being gathered in large



RESURRECTION PLANT.

quantities and dried off, and packed away for months, and even years, there is no possibility of its coming to life at its so called resurrection. After drying it will again absorb a large quantity of moisture, and in so doing it spreads out its green, frond-like surfaces, and appears like a living plant. When again dried it curls and rolls itself up, ready to unroll whenever supplied with moisture.

VARIETIES OF AMARYLLIS.

As a subscriber of your MAGAZINE, I naturally feel an interest in what is published therein. In January, the article, "Florida and its Flowers," mentioned the Fairy Lily. We have bulbs which answer the description exactly, except that the flowers are a beautiful delicate pink.

We left the city late, and June 23d set out a number of these bulbs, the pink buds were then in sight, some with two buds. July 4th we had five blossoms, some opening for the second and third time; it is not unusual for one bulb to blossom three times in a season, and all through the summer there was seldom a day without one or more. They were the wonder and admiration of the neighborhood, no one knew what they were. They are as little trouble as any plant can be, increase very rapidly, and blossom the second year. The older and larger the

bulbs are, the more blossoms. I have never seen the white variety, is this the same?

We have another *Amaryllis*, there are two to five blossoms on a stalk, a rich red, each petal having a white stripe though the center, and finely scalloped edges. It blossoms in February and August. The owner, admiring fine foliage and disliking the general forlorn look of the *Amaryllis* when in bloom, allows it to grow the year round. I think it is six years old, it has had as many as sixteen blossoms in a year, and is always an ornament. When not in bloom we keep it out of the sun, but never allow it to get dry. The flower stalk is now two inches high, the seven old leaves two inches wide are thirty inches long, and two new ones just started.

J. E. H., White Plains, N. Y.

Perhaps Mr. STEELE, who described *Amaryllis Treatiae* in his article, will reply to our correspondent's question.

Amaryllis Johnsonii, which has been very much disseminated, corresponds with the last mentioned variety.

APPLES AND GRAPES.

Can you tell me the hardiest and best varieties of Apples and Grapes for a northern latitude? Apples will grow here, and do well, but the owners of trees do not know what varieties they are.

C. A. B., Escanaba, Mich.

Of the older varieties of Apples, those most surely hardy in your locality are Alexander, Red Astrachan, Duchess of Oldenberg, Fameuse or Snow, Cayuga Red Streak, Lowell, Tetofsky and Talman Sweet. Of newer varieties may be mentioned the Yellow Transparent, Red Bietigheimer, Wealthy and Scott's Winter. Perhaps some of our readers in northern regions may be able to advise other varieties suitable for this locality at the north of Green Bay.

The earliest and hardiest varieties of Grapes may succeed. Moore's Early, Worden, Brighton and Diamond are most worthy of trial.

WINTER CARE OF GERANIUMS.

I have a great many thrifty Geraniums this winter, but the buds turn yellow and do not develop. Will you tell me the cause and remedy?

Mrs. C. O. W., Chetopa, Kans.

First, give the plants all the light you can command, and turn them every day or two, so that all parts may feel the influence of the sun.

Second, be careful about overwatering. It is better that the soil should become a little dry and then be fully saturated with water than that it should be kept quite moist all the time.

Third, keep the temperature down to about 60°, a little less at night, and a little more in full daylight.

Fourth, see that the atmosphere is not made over-dry by furnace or stove heat. Water should be kept on the heating apparatus, so that it may evaporate and pass into the air of the room.

Fifth, Occasionally wash or sprinkle the leaves of the plants, in order to remove dust. By taking them to the kitchen sink once a week this work may be quickly and neatly done.

Sixth, keep the plants free from insects, especially green-fly.

FUCHSIA PHENOMENAL.

Fuchsia Phenomenal has grown and bloomed well, and such blossoms I never saw before; it is worthy of its name. So says A. H. P.

LILY—ROSE—CARNATIONS.

Please state in the MAGAZINE whether the Washington Lily is hardy in this section.

Is there any remedy for the worm which attacks Lily stalks? I lost several last year. They also troubled my Gladiolus.

Your plate, in the November number, did not at all flatter *Lilium excelsum*. I find this species perfectly hardy, and frequently have nine or eleven blooms to the stalk.

Is *Rosa microphylla*, a Chinese variety, hardy in this latitude? I have a fine bush, but have never left it out over winter, and the frequent changes, of course, retards its growth. *Lilium Krameri* and *L. longiflorum* I find rotted in the spring. Are our seasons too cold for them, or do they require some special management?

When is a good time to layer Carnations?

MRS. C. A. P., *Gouverneur, N. Y.*

The Washington Lily is hardy here, and, no doubt, is in St. Lawrence county, especially if given some winter covering of bracken, leaves or evergreen boughs.

We have had cut-worms eat off the young Gladiolus stalks; but do not think they have ever troubled our Lilies in that way. Our inquirer does not state the nature of the attack. The cause of the Lily bulbs rotting, as mentioned, is probably due to an excess of moisture; it is not because they are not hardy. Is the soil undrained? Is there a hardpan underneath that prevents the water from draining away quickly?

Rosa microphylla is not hardy north of the latitude of Washington.

Either layers or cuttings of Carnations can be made now; the earlier the better.

EASY WAY TO START CUTTINGS.

It occurred to me, this fall, when the painters broke down my Chrysanthemums, and I brought in a whole armful of branches, that I would try the "mud system" on my own plan.

I cut the branches up into two or three inch pieces, and crammed them into small pots of sand from the roadside. Each pot I sank to the rim in a "gallipot" (*i. e.* empty marmadale jars, for which, I am thankful to say, I have at last found a use), and I ranged a dozen of these gallipots on the false window sill, described in the December number, keeping them full of water. I gave them very little attention, as my time is limited. The other day I held a survey, and found my shoots had rooted splendidly—in one pot all but one had good roots.

I am pleased with my discovery, as it seems a very easy way to get a good many plants. The mud system is, of course, very old. My invention is the gallipot part.

C. H. G.

THE JESSICA GRAPE.

The *Rural New-Yorker* mentions Mr. E. P. POWELL, of Oneida county, as saying of the Jessica Grape that it is a "miserable fraud," and the *R. N. Y.* calls it an "early good-for-nought." We had never supposed that earliness was an objection to a Grape, for so the *R. N. Y.* appears to put it. Why it is good-for-nought does not appear. It may be so on the poor soil of the *R. N. Y.*'s place, but on good Grape land it is a very excellent fruit; in fact, we doubt if the most expert Grape taster could tell the difference between the Jessica and the Delaware without seeing them. So much for its quality. It proves, with us, to be a heavy cropper, resembling Delaware, also, in this respect. It is a good grower and has firm, healthy foliage. The bunches are rather loose, and the green color is not attractive for a market Grape. For the family garden, where quality is wanted, we think it a most desirable variety.

CALANDRINIA OPPOSITIFOLIA.

In a late number of the *Gardeners, Chronicle*, SERENO WATSON describes a new species of *Calandrinia*, *C. oppositifolia*, which was collected by THOMAS HOWELL, at Waldo, Oregon, and in the coast mountains of Del Norte county, California, near Smith River. The following is the description:

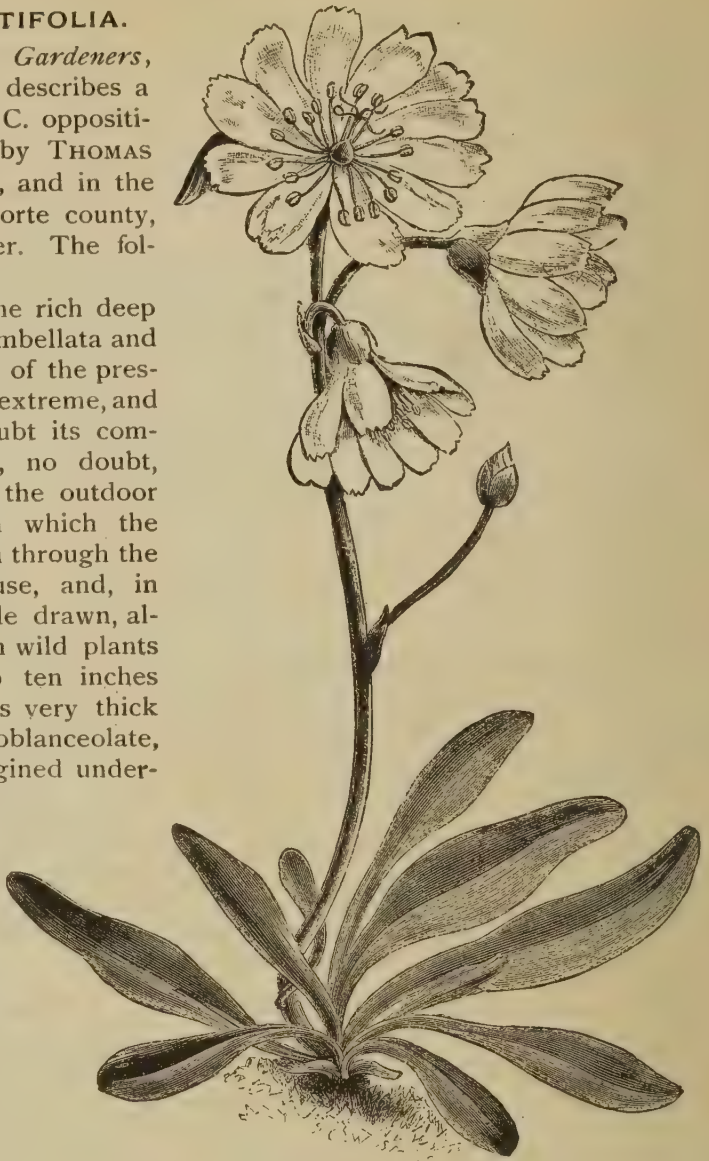
"The contrast between the rich deep maroon of the so called *C. umbellata* and the pure white or rose blush of the present species is striking in the extreme, and as we have no reason to doubt its comparative hardiness, it will, no doubt, prove a great acquisition to the outdoor garden. The plant from which the sketch was made was grown through the winter in an unheated house, and, in consequence, may be a little drawn, although the description from wild plants gives the scape as three to ten inches high. The tuberous root is very thick and fleshy, the lower leaves oblanceolate, narrowed to the scaly margined underground base; from two to three inches long, thick, succulent. The flower stem is branching, with one terminal three-flowered umbel; the pedicels one or two inches long, sepals round, short, acutely dentate; flowers over one inch in diameter, pure white, in some blush-rose, the latter especially very lovely."

The seed of this new species will probably soon find its way into the trade, and where the plant proves hardy it will, doubtless, be a desirable addition to the perennial plants.

SUMMER CARE OF PLANTS.

I should like to tell the readers of the *MAGAZINE*, especially those who may live in a similar climate to Southern Kansas, where we have hot, dry winds, how I kept the plants intended for winter blooming through the summer.

I made a frame like the sides and ends of a box, that is, a box without bottom, ten inches high and about three feet wide, and long enough to hold all the plants I thought could safely be taken care of through the winter. The frame was placed close up to the house on the



CALANDRINIA OPPOSITIFOLIA.

north side, and about three inches of coal cinders first placed in the bottom, and then it was filled up with coal ashes. The ground gently sloped from the house. As soon as the plants got a good start from the spring slips, I potted them in good soil and plunged them in the ashes. The ashes retained all the necessary moisture and ensured good drainage. I kept the buds pinched, and now, December 12th, I am having a profusion of bloom. I felt afraid the alkali in the ashes might injure the plants, but all kinds appeared to enjoy that kind of injury—*Geraniums* of all kinds, *Abutilon*, *Plumbago Capensis*, *Fuchsias*, and others.

Can some reader tell me the name of the winter grower sometimes known as Candle Plant?

P.

PARIS LETTER.

The Hyacinths and Tulips are just peeping from the ground, and the air is redolent with perfume of the giroflé, and Violets are sold upon almost every street corner. It is December, and one would say May. The sunshine and slight rains force the flowers into bloom.

At five o'clock, Sunday morning, with a company of tourists, we started for the

tendered in a Louis the Fourteenth snuff box to driver and passengers, said, "I expect to spend all my money for Violets, Carnations and Lilacs, return home and make them up into bouquets before eleven o'clock, as upon Sunday so many strangers pass to see the modest home of the beloved poet, that I have large sales."

Arrived at the market, there was the

Five o'clock Tea.



early market, which is a sight of interest, determined to rough it as the common people do, in order to see a real market in a Parisian sense. Hailing a street wagon, we were seated upon rough boards, sandwiched in between baskets and boxes, and all ceremony left at home.

MÈRE LOUISE, who has a flower stand directly in front of the late residence of VICTOR HUGO, on the Avenue Victor Hugo, between sniffs of snuff, which she

usual rush of anxious merchants, each hunting a bargain. The fruit, flowers, meat and fowls are auctioneered off to highest bidder in large quantities, and at ten o'clock, when the bell taps, every appearance of a sale is at an end, and then comes the scrapers and cleaners, who put all in order, and soon the stalls are arranged as in any ordinary market, ready for the purchasers, and continues all day.

The people, with all their seeming politeness, can be very brutal, especially when they think that those more fortunate are seeking bargains or their interests, instead of purchasing from their stalls later in the day, at double the price.

France is rich in all the comforts of life and beauties of nature; but come to Paris light hearted and with a full purse, the latter you must have. The people are impressionable and loyal in their love of country, and their taste in flowers no one can fully appreciate unless coming in contact with the lower classes, who, from milkmaid to servant, trip along with gaily decked carts or baskets with some floral decoration, an expenditure as necessary as for the warming coffee and bread, and this love of flowers not only belongs to the higher classes, but to every French woman and man.

MÈRE LOUISE is an old and eccentric flower woman of Paris, known to almost every old resident for her remarkable memory of events, quick speech, and generosity to the poor street sweepers, and for the manner of arranging her flower-stand outside with flowers and branches.

A peep into the windows of the great florists at this particular date, as Christmas draws nigh, shows novel shaped baskets, such as drums, tamborines, banjos, harps in scarlet Carnations, bells in white Hyacinths, cradles in colors of yellow, and pink, delicately tinted Hyacinths and Tulips, with bonbons peeping through the flowers and coquettishly arranged for prices which are fabulous; but the smiling faces of the young ladies engaged in selling these tasteful gifts for Christmas attest that Christmas comes but once a year, and what matters a few francs.

The amiable manners of the jauntily dressed saleswoman at the confectioners tempt one to real extravagance, for there are all sorts of candied French fruits which never yet harmed a child, and as every one, even in Paris, far away from New York or other cities of America, has some child to love or make happy, only another word for Christmas, if those little ones do not secure Paris novelties, this year, it will be because there is some condition, perhaps as binding as the Custom House duties, which prevent their being sent

Hyacinths peep from plain cut glasses, and hidden by tasty ribbon bows; it is considered uninteresting to see all the whole white roots through even blue glass, and it would seem that the ribbon merchants as well as the glass merchants were in hand in glove conspiracy with the confectioners of Paris; for do we not see even gloves for German favors in bonbon boxes, French ones. And every basket or floral ornament has some silk garniture or tastefully made silken bow.

The flowers mostly used by the rich for decorating the Christmas trees and the screens found in every French home are principally Orchids of varied tints, "and ingrates, too, they are," said Madame LABROUSSE, of Grand Boulevard, the celebrated florist, near Grand Hotel, known to every American resident in Paris, for her exquisite taste, pointing to a five hundred franc floral stand composed of shaded Orchids for the Grand Duchesse WALDIMER, presented by an Italian Duke, "this has been a most tiresome task. Orchids do not blend with foliage, and it is impossible to put them at variance with any other flower, they are so arrogant and will not bend or bear introduction."

A beautiful basket of Violets composed of little bunches of Violets laid in irregular rows, showing the stems in that artistic fashion so familiar to the French florist, was much more beautiful, to my mind, certainly less costly. I wondered how any one could select Orchids while Violets bloomed, and Rubber Trees, stiff and heavy, while graceful Ferns bent in courtesy to the ground to dance attendance upon Queen Roses. One might add, also, like costly jewels. Why select diamonds when rubies and sapphires, so esteemed by all old savants, exist. The first named as insolent in size as the Koohinor which decks the Queen of England's brow, the latter warm, glistening, blending and shedding forth their warm tints best when encircled by glittering diamonds, not forgetting that cat's eyes are the favorite stones in Paris for journalists. Why? Orchids are diamonds in horticultural esteem. Hyacinths and Violets are well compared to the rubies and sapphires, and they accept their place with other flowers in any large decoration, sending forth their enthusi-

asm in fragrant sweetness as freely as any Queen-Rose or Carnation of the clove aroma.

"The Hyacinths," said MÈRE LOUISE, "of this year, have paler tints and new names, but are of the same value as last year, bringing no greater price, for the supply is so great and the nice Parmese Violets come in such quantities that it is impossible to compete with them in prices. No one will buy Hyacinths for a corsage ornament when Violets can be had."

All the Christmas decorations for the yearly tree of Alsace *et* Lorraine were of flowers—toys and bonbons—a tree which has floral decorations with glimmering lights—fairy ones, much handsomer than the heavily laden esteemed German one, as commonly seen, in a huge tub, with gingerbread for a foundation, instead of soil.

It is a barbarous custom to cut a tree instead of taking roots and all, and placing in a large tub well covered with silk worsted, or even cotton, and then adding the immense ribbon bow, or draping with the flag of our country. After the Christmas is over decorate the branches with bread crumbs, and teach the little ones to go outside and give the little birds their Christmas. I will answer, it will be more joy for the little ones than the real Christmas tree, and possibly they will help the birds in eating the bread crumbs with more zest than they did the bonbons, under surveillance of grown persons. If a bride should plant a little tree upon her wedding day, perhaps, in the future, she might count years of happiness with its growth.

Hyacinths will decorate well Christmas trees; put them on in bottles, and they will send forth a perfume and show forth their tints to a better advantage than the costliest hand painted candle, which is just in vogue, and is not pretty, but heavy and not artistic.

The Boulevards are being occupied by the street merchants, who are permitted during Christmas and New Year's week to sell their wares, and many an original toy, which one would not be apt to find elsewhere, is bought there for a few sous or francs.

Five o'clock teas are in vogue, and I offer you a real Parisian At Home.

ADA THORPE LOFTUS.

ROSE BUGS AND OTHER PESTS.

From a late letter of a correspondent of Rockingham county, Virginia, we take the following in relation to destroying rose bugs:

I see you have no conception of rose bugs in our county. You have seen bees swarm over a piece of honeycomb until they were several layers deep, or out of a hive until there were knots of them larger than your fists. Now, if you will conceive of just such a bunch of rose bugs around every Rose or Rose bud, and all other flowers that bloom for the three first weeks in June, you will have some conception of my flower garden at that season.

The Grape vines are just the same way, the only limit to the number is the number that can hold together in one bunch, with millions and millions, no exaggeration, all through the air searching for food. They eat the Cherries until they ruin the crop; the young Apples, the blades of grass, and Wheat are full of them, in fact, the whole atmosphere is filled with the pests seeking for food.

I have tried fighting them in many ways, but what one can kill is a mere matter of moonshine. They have the sense of smell, I am sure, and Professor LINTNER, your State Entomologist, agrees with me in this belief. When they first come, and are scarcer, they always choose first the sweet-scented flowers to eat; acting on this I, one year, saved half of my Grapes by hanging small vials in the vines and every day or two putting a few drops of the vilest smelling stuff I could find in them. There was a large Cherry tree one side of the Grapes, and an Apple orchard on the other, and fewer rose bugs that year, by far, than usual, though enough to eat all the Cherries, many of the Apples and all the Grapes on the half of the row that had no vials in it. The next year they came in clouds, and my vials, though an annoyance to them, were not enough to save the Grapes.

Referring to our advice in a private letter to use the Insect Exterminator for the destruction of the rose bugs, the writer says:

I have written you these things that you may more thoroughly understand the enemy we are trying to fight. I am willing to make any application, or in any manner, you may advise, but scarcely think killing a few will be of any good—if I killed ten millions, for miles they are as thick around me. Cannot you fix up something to keep them off by smell? I fought them shy of some Roses one year by putting different poisons in water and sprinkling the bushes; but when I made the poison strong enough to kill the bugs, I killed the Rose bush, too.

Where the insects make their appearance in such numbers as here described, it is evident there must be concert of action in the whole community. Every one must do his share and clear his own premises of the pest. The Insect Exterminator applied dry with the bellows, or water, sprinkling it on the plants, will kill the insects; the powder can be most effectually applied dry in the morning, while the dew is yet on.

I see the newspapers advertising your firm as say-

ing a quart of salt sprinkled under a Pear tree as far out as the roots extend will cure the pear blight. Is this true? So many of my trees are dying. And can you tell me how to fight the black bug that eats Asters? They ruined my whole crop last year, ate up the buds before they opened.

The newspapers give us credit for saying some things we do not say, as well some we do. We have never made the statement mentioned in regard to salt for Pear blight, nor do we know any preventive or remedy for it.

The black bug, that eats Asters can be destroyed by dusting with the Insect Exterminator.

SCALE INSECTS.

Scale insects on house plants are complained of. The few hard-wooded plants one raises in the house ought to be kept free from scale insects with little difficulty. Some good soap suds and an old tooth brush, well applied, will certainly remove them, and a careful watch for them afterwards, should prevent their gaining a foothold.

ROSE INSECTS.

One of our readers, A. H. P., of London, Ontario, complains of trouble in raising Roses on account of insect enemies. "I am at a loss," he writes, "why one, Lord Raglan, was covered with blossoms two or three years, then ceased altogether. It has been well pruned, too."

The insects most harmful to Roses are the green fly, red spider, rose hopper or thrips, and the rose bug and the black slug. Now, though combatting these insects involves some little trouble, yet success will attend all persistent efforts.

The greenfly, the thrips and the black slug can all be kept under by syringing the plants with a solution of whale oil soap. One pound of soap is sufficient for eight gallons of water. Throw the water in a fine spray on the under as well as the upper sides of the leaves. A syringe with a bent nozzle is the best instrument with which to apply the liquid to the lower sides of the leaves.

The red spider can be held in check by syringing the leaves with clear water; in dry times this should be done every day. If the rose bug, *Melolontha subspinosus*, makes its appearance, which is not very often, it can be destroyed by the Insect Exterminator.

As to Lord Raglan, it is a plant of feeble constitution, and our correspondent did well to get bloom from it for two or three years. It is superseded by varieties of more vigorous habit and of similar color.

FORESTRY.

At the meeting of the American Forestry Congress and the Southern Forestry Congress, both held in Atlanta, Georgia, in December, these organizations were consolidated under the name of the former. The next session is to be held in Philadelphia.

'CHAUTAUQUA HORTICULTURE.

The last meeting of the Chautauqua Horticultural Society was held at Brocton, N. Y., January 12th. At the afternoon session the regular subject for discussion was, "Women's work in the management of the vineyard and in the Grape harvest."

Mr. ELMORE said that women are the best and quickest pickers; should prefer them to men at the same price.

Miss LOUISA BURTON said she had one and one-half acres of Grapes. She prunes them herself. Prefers women help. There is no part of the care of a vineyard but women can do well and readily.

Mr. RYCKMAN spoke of the need of uniform packing. In this department of work women especially excel.

Mr. ELMORE said it is common for women to assist in tying up the vines in the spring. The work of pruning being harder, and much of it done in the severe winter weather, it is not usually, or, indeed, rarely done by them.

The testimony of several was to the effect that work done in the Grape harvest is remarkably healthy for the women and girls who engage in it.

Chairman T. S. MOSS said his granddaughter, aged fourteen, worked for him during the past season. She gained twelve pounds in weight in the few weeks so employed. As to wages, the usual price was seventy-five cents per day. If, in special instances, more was paid, it was when one was made superintendent of others, and given increased responsibility.

Mr. CRISSEY said an important con-

sideration was to give regular, uninterrupted work of such a light and healthful character as to insure contented service at fairly paying wages. This is more satisfactory to those employed than occasional employment at a higher price per diem.

Mrs. POST said that, with the exception of pruning, women could do all the work needed in the vineyard, and certainly have better health than in spending so much time in crocheting.

Mr. MOSS would advise both women and men to strive to get vineyards of their own. The height of their ambition should not be to always work for somebody else.

Mr. TENNANT, of Ripley, referred to the case of two women, in his town, who have a two acre vineyard, and do all the work themselves, even to nailing the handles on the baskets.

As a summary of the discussion, and as voicing the sentiment of the society, Mr. ELMORE offered the following, which was unanimously adopted:

Resolved, That the Grape growing interest offers to women a sphere of work, honorable, useful, healthful and remunerative, and that we believe it to be a safe investment for small capitalists.

Discussion was also had on the use of "arsenical solutions as a remedy for the insect enemies of fruit trees."

Mr. HARRY SMITH, of Fredonia, had on one thousand Baldwin trees tried the London purple solution for two successive seasons. He estimated that not over two per cent. of the Apples were wormy. On a part of the same orchard, not sprayed, not over two per cent. were sound.

In the discussion as to the best two-horse plow for vineyards, preference was given to the Rochester gang plow, having three plows; these are set to plow a depth of two and one-half to three inches.

SECRETARY.

WINTER OF 1888-9.

The present winter will pass into history as one of the mildest ever known all through the Northern States, including New England and the Northwestern States. A mildness, almost spring-like, has prevailed, almost uninterruptedly, through December and January to the present date, January 18th. At night the

temperature has, for much of this period, been near the freezing point, sometimes a few degrees below, often as much above, a few times taking a more decided drop and freezing the ground a little, but much oftener ranging between thirty and forty degrees. During the daytime many days have been pleasanter than we are usually accustomed to in the first half of April. The moisture precipitated during this time has been mostly in the form of rain. In the lumbering regions work has been greatly hindered or entirely stopped by the lack of snow.

Wind and sleet have visited some portions of the country with damaging effects. On the 9th of January a hurricane visited Pittsburgh, Pa., tearing down a large building which was in the course of erection; in falling, the walls crushed in two other buildings, killing and wounding the occupants. The whole number killed is believed to be twelve, with thirty-eight wounded, six of these last fatally. This hurricane, in its passage through the State of Pennsylvania, did more or less damage at several points. About five o'clock of the same day it reached Reading, and was then traveling nearly at the rate of one hundred miles an hour. Directly in its path was the Reading Silk Mill, a large, substantially built structure, four stories in height, with a basement beneath. In a moment it fell, as if composed of so many blocks. Nearly two hundred persons went down in the wreck, many of whom were killed, and most of the others injured more or less severely.

At a short distance east of the mill, a building occupied as a railroad repair shop was blown down, killing and injuring several of the workmen.

For much of the time of the past six weeks the still, mild weather has seemed so unseasonable that it has been frequently mentioned as foreboding some ill. Sharp, frosty weather is greatly desired.

An examination of tree buds does not reveal much swelling, but this cannot long be delayed if the same high temperature should continue. Of course, if the buds should swell much, and then cold weather come on, there would be the greatest danger to next season's fruit crop. The blooming of Tulips, Snowdrops, Hepaticas, and other plants, has

been noticed in a number of places, and altogether there are good reasons for serious apprehensions by the fruit-grower. We can but hope for the best. As there is now no frost in the ground, no ice on the lakes, no great snow fields below the far north, an early spring is highly probable.

ANDREW J. CAYWOOD.

The death of this veteran horticulturist occurred on Sunday, the thirteenth of January, at his home in Marlboro, Ulster county, this State. He was born in 1819, in Orange county, N. Y. Mr. CAYWOOD has been known to the country for many years as a fruit-grower, and an originator of new varieties of fruits, and has been active and prominent in the American Pomological Society, the Western New York Horticultural Society, and various similar associations. His profession was suited to his tastes and he enjoyed his work. Among other varieties of fruits which he originated and sent out may be mentioned the Marlboro Raspberry, the Minnewaska Blackberry, the Duchess, Ulster Prolific, Poughkeepsie Red and Nectar Grapes, and also the Metternich Grape, which has been exhibited but not yet disseminated. He stated to the writer, in September last that he had a large number of seedling vines in his trial grounds, which he was testing, and that it was now one of the greatest pleasures of his old age to go among these vines and examine them and learn their qualities. Mr. C. was an occasional contributor to the press on horticultural subjects, and his life work has largely advanced the interests of fruit culture in this country, and his death will be felt as a loss by all who have known him.

SUCCESS IN RAISING MELONS.

I want to tell you that for once in my protracted or oft-repeated experience trying to raise Melons, I made a decided success of it last summer. I have always had to make my experiments on cold clay soil; so it was this time, too, but I had saved up some sods from the roadside the year before, put them in a heap and left them to rot, with frequent buckets of various kinds of washes turned on to keep it moist during the warm weather. Then, in the spring, after placing a quan-

tity of this sod in the bottom of each hill, somewhat deepened to give room, some rich earth put on top of the sod, and stable and hen manure put on top of that and allowed to communicate their fertilizing ingredients to the hill by frequent drenchings with suds or water. The manure then removed and the seeds planted. Got a fine growth of vines and good yield. I planted the Bird Cantaloupe and the Montreal Nutmeg seeds, obtained from you.

One Cantaloupe weighed twenty-two pounds; one Nutmeg eleven pounds. Both of these were perfect in shape and color, and about as good as ever grew, far excelling in quality any I ever saw brought from the south or raised here. Has any one raised larger Nutmegs?

I thought it might encourage and please you to hear that your seeds had done so well, and it may encourage others.

T. B., Waynesville, Ohio.

PRACTICAL GARDEN POINTS.

There has been more delay than was anticipated in issuing the little book of Garden Essays promised our subscribers. By the time this number reaches our readers we trust that the book will, also, have been received by those entitled to it. It is issued under the title of *Practical Garden Points*.

The articles are all by practical garden workers, and will be found wholly trustworthy. The flowering plants to which special articles are devoted are a few in regard to which instructions have not been easily accessible.

Fruit and vegetable growing for market and for private use are prominent features. It will be found valuable for frequent reference.

The following are the titles:

Village Improvements.

The Gloxinia.

The Cineraria.

Annuals in the Winter Window Garden.

Winter Supply of Violets and Pansies.

Chrysanthemums.

The Calceolaria.

The Cyclamen.

The Rose as a House Plant.

The Strawberry.

The Raspberry for Market.

The Blackberry.

Apples.

Grape Vines.

Mushroom Growing.

Asparagus.

Peas.

Onion Culture.

Cabbages.

Cultivation of Celery.

Root Crops for Stock Feeding.

Those who do not receive the book as subscribers, and all others, can be supplied with it at twenty-five cents a copy.

A COPY TO SUBSCRIBERS.

A copy of *Practical Garden Points* will be sent to every subscriber to the MAGAZINE whether singly or in clubs. The above offer is not intended, however, for those who take advantage of our low subscription list with other publications, or to those who subscribe through dealers or publishers.

A LESSON FROM THE FLOWERS.

I've seen wild flowers so wondrous fair,
So beauteous to behold,
That, if the plants had been more rare,
Their worth would be untold;
But, blossoming on every hill,
'Neath bright or cloudy sky,
They did not with their beauty thrill
The common passer-by.

But, should the time come rolling round,
When, by the paths we plod,
These well known plants no more are found
Decking the meadow's sod,
We then shall miss the beauteous flowers,
And wish them here once more
To gladden, through the summer hours,
The field, the wood, the shore.

'Tis thus with many blessings bright,
That God on us bestows;
They comfort us from morn till night,
From year's birth to its close,
And not until they flee from earth,
And we in sadness roam,
Do we appreciate the worth
Of health, and friends, and home.

JOHN H. YATES, *Batavia, N. Y.*

A NEW VINE DISEASE.

A new and undetermined vine disease is now ravaging the vineyards of Southern California. When the vines are attacked by the disease they commence to wither, and the process of disease goes on until they die. "Thousands of acres of vines," says the California *Fruit Grower*, "have been killed, and thousands more are dying." No variety is known to be exempt from attack.

The most injury, as yet, has been done in the San Gabriel and Santa Ana val-

leys, in Los Angeles county, but it has lately appeared, according to report, in Sonoma and Fresno counties. The vineyards attacked are doomed, as there is no way known of checking the disease.

AMERICAN POMOLOGY.

The twenty-second biennial session of the American Pomological Society will be held at Ocala, Florida, from the 20th to the 22d of February. The society is to be received by the Florida Horticultural Society.

Packages intended for exhibition should be sent, freight or express charges paid, to J. O. CLARK, Ocala, Florida. The address of the Secretary, E. A. CROZIER, until the meeting, will be at the Department of Agriculture, Washington, D. C.

THE GIANT ZITTAU ONION.

This variety, which some of the agricultural journals are noticing and recommending, is unsuited to the north, requiring too long a season. It is an Italian Onion adapted to southern localities, where it may show some superior points.

OUR PREMIUMS.

Our friends who are working for Premiums, and obtaining subscribers to the MAGAZINE, should keep up a steady effort, as they can continue to add to their clubs until the 1st of October. Persistent effort will tell in time.

ENTOMOLOGY.

Professor JOHN HENRY COMSTOCK, of Cornell University, has been doing a good work, not only for Cornell students but for the country at large, in the preparation and publication of a text-book on entomology. It is written in simple, clear language, and for the purpose of enabling students to acquire thoroughly the elementary principles of the science, in order that they may identify and classify insects. Analytical keys, similar to those used in botanical works have been prepared to enable the learner to determine specimens. The title of this work is, *An Introduction to Entomology*. It is embellished with many original and excellent illustrations, drawn and engraved by his wife, ANNA BOTSFORD COMSTOCK.

The groups of insects have been fully

characterized, and much space is given to accounts of the habits and transformations of the forms described. Particular attention has been given to those insects that are most troublesome to farmers, gardeners and fruit growers, and the means of destroying them and preventing their ravages. The pronunciation of names is indicated.

The author is very happy in his language and the manner in which he presents his subjects, and invests the study with a charm one could hardly expect possible. This work is sure to prove of great service to the public in spreading a knowledge of the insects of this country. The mechanical arrangement and execution of the book are admirable. Professor COMSTOCK and his wife cannot be too warmly congratulated on this splendid contribution to scientific literature. A portion only of the work is issued at this time, the remainder to follow later. The present volume is issued at \$2.00, and can be obtained from the author, at Ithaca, N. Y.

SOME BULBOUS PLANTS.

In October I bought the following named bulbs from an eastern firm: one *Fritillaria recurva*, one *Calochortus* or *Butterfly Lily*, and one *Spotted Calla Lily*. The two first named, I want to know if they are hardy—will it do to plant them out doors, like Tulips or Hyacinths? I have kept the bulbs in the cellar all winter; thought cultural directions would come with them, but there was no directions for growing, and I was afraid to plant out of doors.

The *Spotted Calla* I potted October 13th, and it has not started to grow yet, not a bit of green in sight. I examined the bulb three weeks ago to see if it was rotting, and it was sound, and no start made in root growth yet. Please tell me soon what to do.

Will some contributor to the *MAGAZINE* suggest designs for flower beds; also, pretty trellis for vines.

I planted, after gumming together, a pink and blue *Hyacinth*, a *Tulip* and a *Jonquil*, a *Tiger Lily* and the old garden *Lily*. I am anxious for them to bloom to see the result; it may take years, or it may be forever before they mix, but I will be patient.

Mrs. E. E., *Erin, Tenn.*

It is probable that both the *Fritillaria* and the *Calochortus* will prove hardy in Tennessee, and it will be better to plant

them out than to keep them longer in the cellar.

The season of growth of the *Spotted Calla* is in spring and summer, and in another month it will be apt to make a start. The divided and joined bulbs will amount to nothing. Plants are not crossed in that manner. Cross-fertilizing is done by supplying the pistil of one variety with the pollen from another.

HOME STUDIES.

Home Studies in Nature, by MARY TREAT. A charmingly written and well illustrated book on birds, insects and plants. MARY TREAT is one of the most patient and careful observers of nature, and understands what she sees, and is endowed with a rare ability to express in writing the facts that have come under her observation, and the true interpretation of them. The perusal of the book will strengthen a desire to know more of the curious and wonderful things in nature; and this desire may be gratified, for, to quote the concluding sentence of the preface of the book, To the lover of birds, insects and plants, the smallest area around a well chosen home will furnish sufficient material to satisfy all thirst of knowledge through the longest life. Published by Harper Brothers, New York.

THE ORIENTAL POPPY.

The *Oriental Poppy*, *Papaver Orientale*, is a native of the lands surrounding the eastern extremity of the Mediterranean Sea. As shown in the colored plate of this issue, it has large, deeply cut, hairy leaves, and large, handsome, orange-red flowers, with a dark spot at the base of each petal. It is a hardy perennial plant, and is easily multiplied by seeds. The plant reaches the height of two and a half to three feet, and blooms early in summer. It is a very desirable and showy plant in the herbaceous border, and shows to the best advantage when quite a number of the plants stand together, forming a considerable patch.



OUR YOUNG PEOPLE.

AN AFTER-SCHOOL TALK.

"How many boys present expect to attend the coming inauguration of the new President," asked a school teacher not fifty miles distant from Washington city.

Up went one hand and another, and another, until six up-stretched arms located as many very satisfied-looking faces. Then, to bring a smile to the suddenly sobered ones, she asked:

"How many boys present expect to be President of the United States some day?"

For an instant a surprised look was the only answer, and then up went every boy's hand, following the lead of the youngest boy in the room—a spirited boy, whose father was a drayman.

"It's very well," smiled the teacher, "to set your mark high, because the higher you aim the higher you'll attain, you must remember. Though you cannot all become Presidents, you can all make worthy, honorable men of yourselves, such as will compel respect; while your votes will help to make Presidents of men who are boys now, very much like yourselves, no doubt. And now I have a special object in view in desiring each one of you to write down the very best ideas you can recall in connection with the late campaign (ere it quite slips away from everybody's memory), and hand the result to me."

Then this teacher went on to further explain what she desired; but we shall be best entertained by following home a boy after school (whom his fellows call Charley), and listening to his account of the matter.

Upon entering his mother's sitting-room he bumped into a seat in a most woe-begone fashion.

"What in the world is the matter?" inquired his mother. "You generally come from school in good spirits."

"Matter enough. Don't you think our teacher told us, this afternoon, to write an essay of one hundred words or more on the late campaign, and to write it there in our seats. I didn't know one thing to say about it, except to give the

names of the candidates, and to tell what a lot of fun we boys had with the fireworks and cannon, and processions and music that were gotten up, and so forth; and she wouldn't let it pass—said that sort of thing wasn't the real campaign, but only the everessence—or some such word—anyway, it means the froth and foam of a thing."

"Effervescence," suggested his mother.

"That's it; and she said that because we boys are to be the future men of the nation, and carry on political campaigns ourselves, she had a certain object in view in asking us to write on that subject. Said there was two especial features developed by the late campaign, which she wished that not only ourselves, but a few hundred thousand other boys could realize and always remember, and said she had wondered if any of us had heard these points spoken of in such a way as to fix them in mind during even the short time that has passed since the election.

"And did any of the boys hit upon the right points?" asked his mother, now very much interested.

"Not one of them. But one boy wrote something about the President having to get out of the White House, and called him by some slang name, and when the teacher read that she flashed like blazes, I tell you. Then he hurried to say that he didn't know that she was a Democrat, or he'd have called him President Clève-land."

"What did she say to that?"

"She straightened herself up, and said, 'I'm neither Democrat nor Republican when I'm in the school room; I'm simply your teacher, and you my pupils, whom it's my duty to teach to speak and write respectfully of the chief magistrate of our government, without regard to party.'"

"She was quite right," said Charley's mother. "Those who aim to cast odium upon the President of the United States by the use of coarse, vulgar epithets, belittle only themselves, whether they are

school boys, demagogues or editors. At best, it is a weak, silly thing to do. We have a noble government, Charley, and to be chosen to fill its chief office by a voting majority of our vast population confers a dignity upon whomsoever the man may be, which all correct people will choose to respect in speaking of him. But what are you boys going to do about your 'essays,' as you call them?"

"The teacher said we might get what help we can at home, and have them ready for her to-morrow afternoon. But papa is away, and women aren't politicians and don't know about such things, and I just don't know what to do."

"Be careful, Charley, boy, your teacher is a woman. Had you been an attentive listener, you might have heard your papa and me discussing two points that are probably the ones to which your teacher refers. For, truly enough, you boys, in the future, must see to it that our country is good and great and glorious, and you must cultivate correct ideas now, so as to be ready."

"Yes, yes, I see; but please hurry up and tell me what to say, and, O, I'll thank you ever so much for it."

"Well, first, then, what class of people is necessary to constitute a strong nation?"

"O, yes, you've talked to me about this before; do you mean good citizens?"

"I certainly do. The greater the proportion of high moral character, so much the greater is the unity and strength of the nation. Now think of the boys you know—and men, too. What condition of their lives seems most necessary to make of them good citizens, and to keep them so?"

"Churches?"

"Churches must comprise a part of every thriving community. But what did God make before he made the church?"

"O, now I know what you mean—the family."

"Yes, the family—the *home*. God planned the home before He founded His church; for out of the homes must come the material for the churches—for the *nations*, you see. And now, if wise and good men were aiming to secure for the republic a long and prosperous future, what would they be likely to take into consideration first?"

"The homes of the people?"

"Now you have it, Charley—the homes of the people and the legislation necessary to protect them—which means the restricting or putting down of prevailing vices that waylay and lure to their destruction, not only our boys, but young men and old, bringing heart-breaks and ruin into countless homes. Many such are broken up, children scattered and demoralized, often to the extent that they never establish respectable homes of their own."

"Yes, mamma, I can see all this now; but what has it to do with the late campaign?"

"I'll tell you. At the close of the Chicago Republican convention, a resolution was introduced referring to the protection of the purity and sanctity of the homes of the nation, as the surest bulwarks of safety and strength for the Republic."

"At the last moment, amid the tumult of disorganization, this choicest plank of the platform was so persistently held up by two resolute men before that surging, shouting multitude as to compel its recognition, followed by a wild cheer of approval and adoption. No reflecting Christian, Charley, can believe that the God of nations will not favor a people who have boldly incorporated into their political platform such a sentiment as that, if only they will now live up to what they are pledged."

"Don't you think, my son, that this is one of the 'points' to which your teacher referred?"

"I am sure of it. If it is not, it ought to be. Now, what is the other?"

"It is this. The President-elect returned to the sensible custom of the days of his grandfather, and did not go about the country electioneering for *himself*—a most unseemly thing for any man to do—but remained at home, as befits the dignity of one selected to stand at the head of the nation. And yet it did not lose him the victory. Remember that, Charley."

"I surely will, mamma. And this idea of the President-elect staying at home will give me the second point, I think, that the teacher referred to as having been developed by the late campaign."

"Perhaps so; but if she knows of any other new departure of so hopeful a nature we'd surely like to hear of it. What if she should question you about the As-

sociation for National Reform? What could you say of it?"

"I'm sure I don't know."

"Well, you can say this much—that men have been appointed to visit colleges and universities to discourse on the subject of political reform, hoping thereby to hasten the time when no part of the politics of the country shall be controlled by bummers and unscrupulous demagogues, and when wholesale slander of party candidates, either from the rostrum or through the press, shall no longer be tolerated by public opinion.

"Of course, party principles and policies, as also the measures for carrying out the same are open to criticism; but, Charley, boy, you are quite old enough to understand the difference between criticism of principles and measures, and personal criticism of men who have been carefully chosen as party candidates for high office. And you are old enough, too, to feel a tingle of patriotic pride when your country is well spoken of by the magnates of foreign nations. Listen to this."

And she opened her scrap book and

read an extract from Prince Bismarck's speech to the Reichstag, May 14, 1888:

"The success of the United States in material development is the most illustrious of modern times. The American nation has not only successfully borne and suppressed the most gigantic and expensive war of all history, but immediately after it disbanded its army, found employment for all its soldiers and marines, paid off most of its debt, gave labor and homes to all the unemployed of Europe as fast as they could arrive within its territory, and still by a system of taxation so indirect as not to be perceived, much less felt."

"Isn't that splendid reading! Ah, my boy, it's the kind that leaves a pleasant taste in the mouth and a glow in the heart, because we know it is true. When your papa shall have returned we will further discuss these matters, and he will enjoy, too, hearing your experience, and its result, with your wise and thoughtful teacher. We will hope there are many more such as she."

MARIA BARRETT BUTLER.

A LITTLE POET.

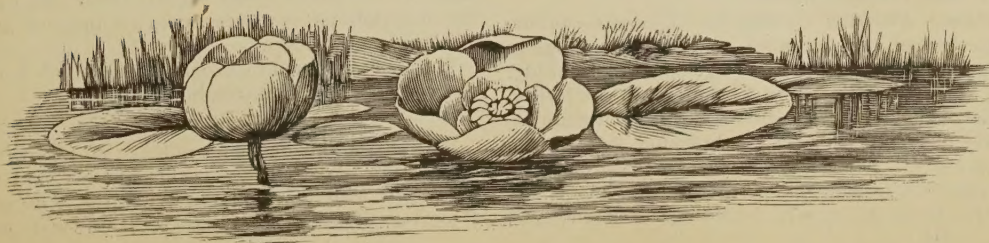
Out in the garden, wee Elsie
Was gathering flowers for me;
"O, mamma," she cried, "hurry, hurry,
Here's something I want you to see."

I went to the window. Before her
A velvet-winged butterfly flew,
And the Pansies themselves were not brighter
Than the beautiful creature in hue.

"O, isn't it pretty?" cried Elsie,
With eager and wondering eyes,
As she watched it soar lazily upward
Against the soft blue of the skies.

"I know what it is, don't you, mamma?"
O, the wisdom of these little things
When the soul of a poet is in them,
"It's a Pansy—a Pansy with wings."

EBEN E. REXFORD.



EDITOR'S MISCELLANY.

LITERARY NOTICES.

Under the title, *The Credentials of Science the Warrant of Faith*, the author, Josiah Parsons Cooke, LL. D., gives to the world a volume the "motive" of which, he says, in the preface, "is sufficiently indicated by its title, and requires no further introduction."

In the first chapter, the writer states that the object is "to show that the inductions of natural theology are as legitimate as the inductions of physical science," and most of the work is the display of the similarities in these two fields of thought.

The style of the writer is scholarly but easy, instructive and attractive. Yet, as one peruses the pages, he constantly feels that it would have been difficult to select a title for the book which would more effectually conceal the subject matter than the one that has been given it. Whatever difficulties may exist between the general system of scientists and that of theologians, they are not in any way related to natural theology, whatever that may be. In making this statement, which no one will question, the greater portion of the book is thus summarily dealt with, so far as it relates to the difficulties mentioned. The writer says, "the doctrines of Christianity, as a system of revealed religion, do not, of course, come under our consideration." But it is with these very doctrines that the difficulties with science have been felt, and there is where all the trouble lies.

Notwithstanding the inapplicable title, and the fact that the work was first written as a series of lectures, and delivered before the Union Theological Seminary, as a course on the evidences of Christianity, the writing might be considered as sufficiently consistent throughout, though practically aimless, if it were not that in the last two chapters the author appears in the role of a pacificator between the theologians on the one hand and scientists on the other, a position he is in no wise entitled to by the matter he presents. The book is published by Carter and Brothers, New York.

Gastineau's Conversation Method with the French. By Edmond Gastineau, A. M., Graduate of the Université, Paris, and Principal of the Conversation School, New York.

The method here adopted is, so far as possible, that which a person follows in a foreign land when surrounded by those who speak only the French. In such cases the ear is incessantly struck with the sound, not of single words, but of complete sentences and perfect idiomatic forms; and thus a limited but sufficient collection of such sentences and idioms is gathered by the learner. The *Conversation Method* supplies the pupil from the outset with sentences in common use, which are rehearsed in colloquial exercises, and when thoroughly familiar, analyzed, and the words of which they are made up inserted into the forms and idioms to express a still greater variety of meaning. This forms the basis of the *Method*. Ivison, Blakeman & Co., New York, and Chicago, Illinois.

Alden's Manifold Cyclopaedia. The issue of the tenth volume calls attention to the rapid progress which this excellent popular cyclopaedia is making. The volume extends from Cosmography to Debry, contains about 640 pages and about 100 illustrations, handsomely printed and neatly bound in cloth, all for 50 cents! The *Manifold* is more comprehensive than any other cyclopaedia except Cassel's (which costs several times as much), including an unabridged

dictionary of the English language in addition to ordinary cyclopaedia matter, and though many of the articles are necessarily brief, they are sufficiently full for practical people, and some articles are surprisingly extended—for instance, Cotton occupies 26 pages; Creeds and Confessions 5 pages; Darwin and Darwinian Theory 17 pages, and so on. It would be strange, indeed, if a cyclopaedia of such great merit, published at a cost so surprisingly low, did not reach an enormous circulation. A specimen volume may be ordered and returned if not wanted. John B. Alden, Publisher, New York, Chicago, Atlanta and San Francisco.

Botany. Though no special want is felt in school literature relating to botanical science, yet it is interesting to have a new presentation of the subject. This has been given us in a treatise, the full title of which is "*Botany for Academies and Colleges*," consisting of Plant Development and Structure from Seaweed to Clematis, with two hundred and fifty illustrations, and a Manual of Plants, including all the known orders with their representative genera. By Annie Chambers-Ketchum, A. M., Member of the New York Academy of Sciences." The volume is dedicated to the illustrious memory of Antoine L. De Jussieu.

A general examination enables us to express the opinion that the first part of the work, that on structural botany, has been exceedingly well prepared, and without following old lines either in arrangement or expression. The subject is very fully illustrated with many good and new engravings.

The novel arrangement of this part is, to say the least, a doubtful one for an elementary book, as the tendency is to carry the pupil into subjects he cannot understand for the want of that information that follows later. The forms of vegetable life are discussed in an ascending series, from the lowest to the highest, and though such an exhibition of the subject might not only be feasible, but even extremely interesting, by a very skillful teacher, yet in ordinary use, and by teachers who have no special skill, as is really the case with the great majority of those who have to do the teaching of this science, we are inclined to think that the usual method of commencing with flowering plants is, on the whole, the best. This, however, may be a mistake, and, if so, the present work will enable an advance in teaching.

The author's style is very concise, and this allows a brief view of a great variety of facts and subjects relating to morphology, physiology, plant anatomy and chemistry, which constitute the four parts of the first section of the book. A good teacher could, no doubt, do good work with this part of the book as a guide.

In regard to the second part, which aims at covering the Flora of the whole world, we are decidedly of the opinion that it is impracticable, and a trial of it would quickly so decide. With the principal species of the principal genera of all the orders of the whole world, phanerogamic and cryptogamic, confined to one hundred and seventy twelve pages, the descriptions are necessarily too brief to admit of plant identification.

The book is issued in excellent style by J. B. Lipincott Company, Philadelphia, Pa.

WANTED.—The February number of 1878, of this MAGAZINE. Any one having this number, and willing to part with it, will please write to E. Ruston, 14 Onondaga Building, Syracuse, N. Y., and state price.